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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,709	07/16/2004	Hiroshi Kuroda	056203.55146US	6438

7590 05/24/2005  
Crowell & Moring  
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Intellectual Property Law Gr  
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Washington, DC 20004-2595

EXAMINER

GREGORY, BERNARR E

ART UNIT PAPER NUMBER

3662

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EA

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/501,709	KURODA ET AL.	
	Examiner	Art Unit	
	Bernarr E. Gregory	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                  |                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                             | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

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1. Independent claim 2 is allowable over the prior art of record.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicants' claimed apparatus as set forth in independent claim 2 that is particularly characterized at least by the claimed "control processing means which detects a frequency of a beat signal of said second reflection signal received by said transceiver unit and a signal emitted by said transceiver unit and detects changes in an attitude of said radar device for said continuous plane based on said frequency" taken in the overall context of independent claim 2.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 14 of independent claim 1, "the relative attitude" lacks antecedent basis since there is no earlier recitation of "a relative attitude" in the text of independent claim 1.

Dependent claims 4, 5, and 6 are indefinite and unclear in that they are not clearly and definitely set forth as dependent claims while have reference in the text of each to other claims. A claim may only refer to another claim if it is a dependent claim. Please see 37 CFR §1.75(c).

Dependent claims 3-6 are unclear in that they depend from unclear independent claim 1.

4. Claims 4, 5, and 6 are objected to under 37 CFR §1.75(c) in that they refer back to another claim without further limiting that claim. 37 CFR §1.75(c) refers to a dependent claim as one "referring back to and further limiting" another claim.

Each of claims 4, 5, and 6 ought to be redrafted so that the reference to the other claim is in the preamble of the claim and so that the transitional element at the end of the preamble is "further comprising."

5. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

6. Claims 3, 4, 5, and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Deutsch (U.S. Patent 3,749,197 A) is of interest for showing a radar that is mounted in a "moving object" that is "moving along a continuous plane" where there is a lobe directed toward the "continuous plane" as in independent claims 1 and 2. For example, see ray C of Figure 2 of Deutsch (U.S. Patent 3,749,197 A) and column 1, lines 13-32 and column 2, lines 10-20 of Deutsch (U.S. Patent 3,749,197 A). A means is not disclosed in Deutsch (U.S. Patent 3,749,197 A) to receive a reflected sidelobe and to process the received sidelobe to obtain

"information correlated to the relative attitude of said radar device" (claim 1, lines 14-15).

Sato et al (U.S. Patent 3,778,823 A) is similar to Deutsch (U.S. Patent 3,749,197 A) in that it discloses a radar mounted in a "moving object" that is "moving along a continuous plane" where there is a lobe directed toward the continuous plane; however, Sato et al (U.S. Patent 3,778,823 A) likewise fails to disclose means that receive a reflected sidelobe and that process the received sidelobe to obtain "information correlated to the relative attitude of said radar device" (claim 1, lines 14-15).

Each of Young et al (U.S. Patent 5,684,490 A) and Young et al (U.S. Patent 6,005,511 A) is of general interest for showing a radar mounted in a "moving object" that is "moving along a continuous plane" where there are pulses directed toward the "continuous plane" as in independent claims 1 and 2 as pointed out in the abstracts of each of these references. Since each of Young et al (U.S. Patent 5,684,490 A) and Young et al (U.S. Patent 6,005,511 A) is a pulse radar, it would not have the "beat signal" processing means as set forth in independent claims 1 and 2 (i.e., the claimed "control processing means ...").

Voigtlaender et al (U.S. Patent 6,043,772 A) is of general interest for showing a multibeam radar in a vehicle where there is an "antenna that forms a total of at least two antenna lobes" (Abstract, line 2).

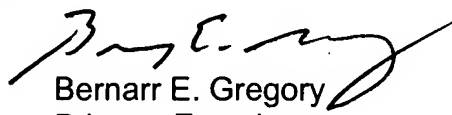
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571)

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272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Bernarr E. Gregory  
Primary Examiner  
Art Unit 3662